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United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

Veterinary
Services

Biosecurity Measures in Dairy Herds

National Dairy Heifer Evaluation Project

Today's dairy producers are becoming increasingly aware of the problems associated with infectious disease and the spread of diseases from animals in and around the dairy operation.

During a 1991-92 study by the National Animal Health Monitoring System (USDA:APHIS:VS), dairy producers were asked a variety of questions about the biosecurity components of their farm operation. The National Dairy Heifer Evaluation Project (NDHEP) included 1,811 operations in 28 states¹ of which 1,177 provided data on biosecurity. These operations were randomly chosen so that the results would be representative of herds of 30 cows or more in the 28 states. The herds represent 78 percent of the National dairy cow population.

Relatively large proportions of dairy producers bring animals onto their operations as shown in Figure 1. Over 25 percent brought either lactating or dry cows onto the operation and 22 percent brought bulls on.

Figure 2 shows the percentage of the producers who quarantined new dairy and beef animals and the length of their separation from the herd. More producers quarantine calves and young heifers than any other age group, but they represent only 27.9 percent of producers who bring calves and heifers onto the operation. In general, a

Figure 1. Percentage of Dairy Producers That Brought Cattle onto Their Operations During the 12 Months Prior to the Study

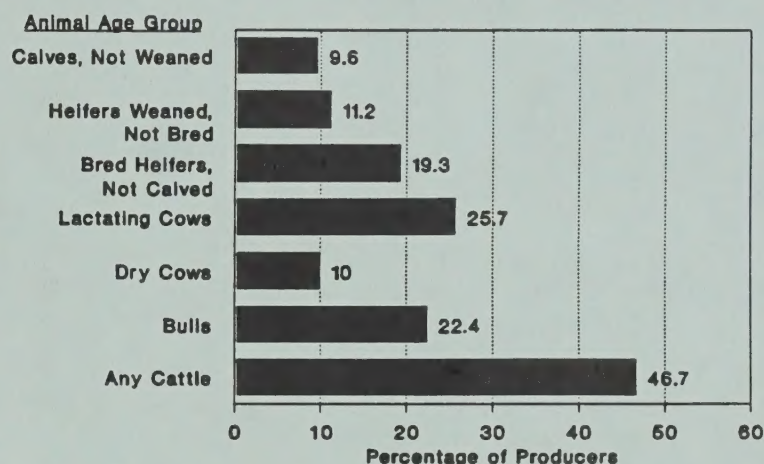
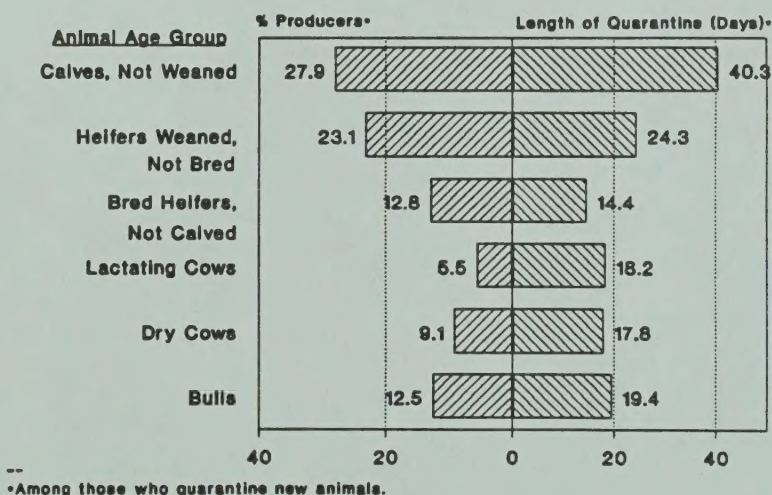
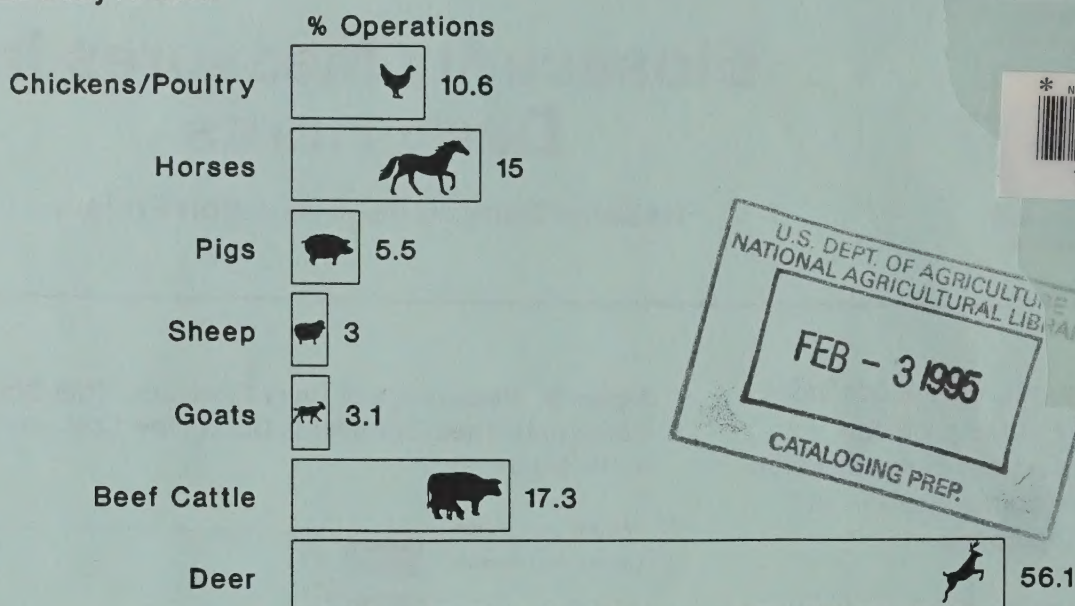


Figure 2. Quarantine Practices Among Producers That Bring Cattle onto the Operation



¹States participating in the National Dairy Heifer Evaluation Project (NDHEP): Alabama, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, North Carolina, Pennsylvania, Ohio, Oregon, Rhode Island, Tennessee, Vermont, Virginia, Washington, and Wisconsin.

Figure 3. Percentage of Herds Where Other Animals Have Potential Physical or Feed Contact with Female Dairy Animals



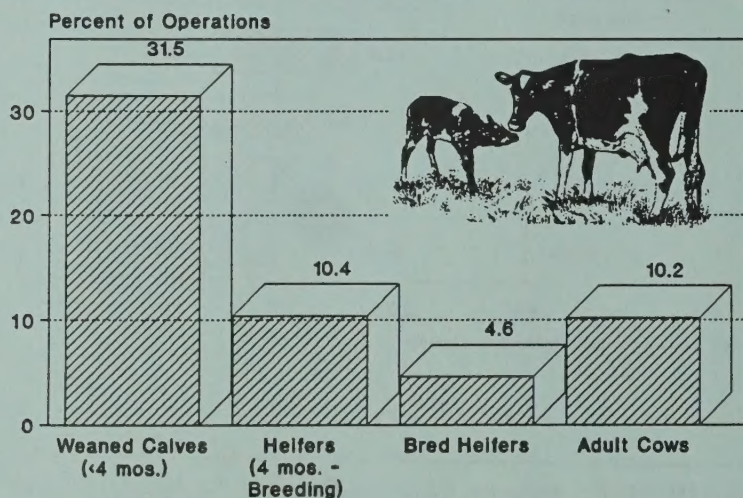
small percentage of producers quarantine, particularly the adult cows and bulls. These percentages likely reflect the types of housing used for the various age groups; young calves are most often housed in individual pens or hutches.¹

Concerns have been raised that contact with other species or animals around the operation may be a means of disease spread. Figure 3 shows the various species of animals that have an opportunity for physical or feed contact with dairy animals. These results may reflect that one or more age groups have potential contact.

For some diseases, transmission may occur by association of young dairy calves with older animals on the farm. Figure 4 shows the extent of physical contact that young dairy calves have with older groups of dairy animals. On nearly one-third of the dairy farms, young calves have contact with older, weaned calves.

These and other data gathered during the NDHEP will help us to understand more about the spread of disease on U.S. dairy farms. 🐄

Figure 4. Percentage of Operations on Which Preweaned Dairy Heifer Calves Have Physical Contact with the Following Classes of Older Animals



Participants in the NDHEP also included the National Agricultural Statistics Service (USDA), National Veterinary Services Laboratories (USDA:APHIS:VS), and State and Federal Veterinary Medical Officers. The Cooperative Extension Service provided editorial assistance. For more information on the National Dairy Heifer Evaluation Project and other NAHMS programs, please contact:

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¹See the NDHEP results sheet on Housing the Dairy Calf for further information.